

REMARKS

Claims 1-10, 15, 17-18, and 21 are pending in the application. Claims 1 and 7 are independent. By the foregoing Amendment, Applicants have amended claims 1, 7, 10, and 17-18. It is believed that these changes introduce no new matter and their entry is respectfully requested.

Rejection of Claims 7-10 and 15-18 Under 35 U.S.C. §103(a)

In paragraph 4 of the Office Action, the Examiner rejected claims 7-10, 15, and 17-18 under 35 U.S.C. §103(a) as obvious by U.S. Patent No. 6,434,175 to Zah (hereinafter “Zah”) in further view of U.S. Patent No. 5,459,801 to Snitzer (hereinafter “Snitzer”). To establish a *prima facie* case of obviousness, an Examiner must show three things: (1) that there is some suggestion or motivation to modify a reference or combine reference teachings to arrive at the claimed invention, (2) that there must be a reasonable expectation of success, and (3) that the references teach or suggest each and every element of the claimed invention. (MPEP §2143.) Applicants respectfully traverse the rejection.

Amended claim 7 recites in pertinent part “a set of optical amplifiers formed in the integrated optical circuit, an individual optical amplifier being *a silica-based optical amplifier* having a silica-based core” *and* “an arrayed waveguide grating (AWG) formed in the integrated optical circuit and coupled to the set of optical amplifiers, the arrayed waveguide grating (AWG) being *a silica-based arrayed waveguide grating (AWG)*” (emphasis added). Support for these changes for at least some embodiments can be found at page 10, first full paragraph, page 11, first paragraph, and/or Figure 6 of Applicants’ Specification.

Applicants respectfully submit that Zah in view of Snitzer fails to teach or suggest an integrated optical circuit in which optical amplifiers and an arrayed waveguide grating (AWG) are silica-based as recited by claim 7. Applicants respectfully submit therefore that claim 7 is patentable over Zah in view Snitzer. Claims 8-10, 15, and 17-18 properly depend from claim 7, thus are patentable over Zah in view Snitzer as well. MPEP §2143.03 provides

that if an independent claim is unobvious, then any claim depending from the independent claim is unobvious (citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)). Accordingly, Applicants respectfully request that the Examiner reconsider and remove the rejections to claims 7-10, 15, and 17-18.

Rejection of Claim 21 Under 35 U.S.C. § 103(a)

In paragraph 5 of the Office Action, the Examiner rejected claim 21 under 35 U.S.C. § 103(a) as being unpatentable over Zah as applied to claim 7 above and in further view of U.S. Patent No. 6,137,939 to Henry et al. (hereinafter “Henry”). Applicants respectfully traverse the rejection. Applicants respectfully submit that claim 21 properly depends from patentable claim 7 and is therefore patentable over Zah in view of Henry at least for the same reasons as claim 7 is patentable over Zah in view of Henry. Applicants respectfully request that the Examiner reconsider and remove the rejection to claim 21.

Rejection of Claims 1-6 and 21 Under 35 U.S.C. § 103(a)

In the Office Action, the Examiner rejected claims 1-6 and 21 under 35 U.S.C. § 103(a) as being unpatentable over Zah in view of Snitzer. Applicants respectfully traverse the rejection.

Amended claim 1 recites in pertinent part “a set of optical amplifiers formed in the integrated optical circuit, an individual optical amplifier being *a silica-based optical amplifier*” and *a silica-based arrayed waveguide grating (AWG)* formed in the integrated optical circuit” (emphasis added). Support for these changes for at least some embodiments can be found at page 10, first full paragraph, page 11, first paragraph, and/or Figure 6 of Applicants’ Specification.

Applicants respectfully submit that Zah in view of Snitzer fails to teach or suggest an integrated optical circuit in which optical amplifiers and an arrayed waveguide grating (AWG) are silica-based as recited by claim 1. Applicants respectfully submit therefore that claim 1 is patentable over Zah in view of Snitzer. Claims 2-6 properly depend from claim 1 and claim 21 properly depends from claim 7, and thus are patentable over Zah in view of Snitzer as

well for at least the same reasons that claims 1 and 7 are patentable over Zah in view of Snitzer. Accordingly, Applicants respectfully request that the Examiner reconsider and remove the rejections to claims 1-6 and 21.

Rejection of Claim 5 Under 35 U.S.C. § 103(a)

In the Office Action, the Examiner rejected claim 5 under 35 U.S.C. § 103(a) as being unpatentable over Zah in view of Snitzer as applied to claim 1 above and in further view of common knowledge in the art. Applicants respectfully traverse the rejection. Applicants respectfully submit that claim 5 properly depends from patentable claim 1 and are therefore patentable over Zah at least for the same reasons that claim 1 is patentable over Zah in view of Snitzer. Applicants respectfully request that the Examiner reconsider and remove the rejection to claim 5.

CONCLUSION

Applicants submit that all grounds for rejection have been properly traversed, accommodated, or rendered moot, and that the application is in condition for allowance. The Examiner is invited to telephone the undersigned representative if the Examiner believes that an interview might be useful for any reason.

Respectfully submitted,
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN

Date: 8/8/2005

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